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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/697,070	10/29/2003	Keith Alan Hankin	50277-2241	8121

7590   06/07/2006

Attention: Brian D. Hickman
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EXAMINER
LIE, ANGELA M

ART UNIT	PAPER NUMBER
2163	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

<table>
<tr><td rowspan="2" style="text-align:center;vertical-align:middle;">Office Action Summary</td><td>Application No.</td><td>Applicant(s)</td></tr>
<tr><td>10/697,070</td><td>HANKIN, KEITH ALAN</td></tr>
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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 October 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-26</u> is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-26</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>29 October 2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some *   c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date <u>1/30/2006</u>.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   The claims 7 and 20 are objected for following informalities:

2.   The phrase "one or more second clients" was not specified in any of the

proceeding claims. For the purposes of the examination, the examiner interprets the

above noted phrase as a database.

3.   The appropriate corrections are required.

Claim Rejections - 35 USC § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

5.   The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act

of 1999 (AIPA) and the Intellectual Property and High Technology Technical

Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting

directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior

to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6.   Claims 1-11,13-24 and 26 are rejected under 35 U.S.C. 102(e) as being

anticipated by Chinta et al (US Patent 6879995).

As to claims 1 and 14, Chinta discloses a method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, comprising: storing at a first database server (Figure 2C, 108A) a first set of

space usage data that reflects the amount of free space associated with the database

(Figure 2C, 110); retrieving, from one or more second database servers (Figure 2C,

108B), a second set of space usage data (the system as taught by Chinta has a

capacity to access different partitions of the database storage i.e. first and second

spaces) that reflects the amount of free space associated with the database (Figure 2C,

110); updating the first set of space usage data with the second set of space usage data

(the system as shown in figure 2C has a capacity of updating data, column 39, lines 53-

56); and evaluating the usage of space in the database based on the updated first set of

space usage data (column 39, lines 42-56, in order to determine if login operation can

be performed or resumed, the evaluation of database must be performed).

As to claims 2 and 15, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, wherein the first set of space usage data and the second space usage data

each reflect the amount of free space in one or more tablespaces that are each

associated with the database (column 37, lines 50-51 and column 39, lines 53-56).

As to claims 3 and 16, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, wherein the first set of space usage data and the second space usage data

each reflect the amount of free space in one or more files (wherein database table is

associate with a file) that are each associated with the database (column 37, lines 50-51

and column 39, lines 53-56).

As to claims 4 and 17, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, wherein the first set of space usage data is updated based on changes made

to the database by the first database server (Figure 23), and wherein the second set of

space usage data is updated based on changes made to the database by the one or

more second database servers (the second server is also an application server and has

a capability to perform the same function as the first server which is referred to flow

chart shown in the figure 23).

As to claims 5 and 18, Chinta discloses the method and a computer- readable

medium carrying one or more sequences for determining the usage of space in a

database, wherein the step of storing the first set of space usage data comprises:

storing a subset of the first set of space usage data (Figure 23, steps 502 and 504, and

wherein server (108A or 108B) has a capacity to store the data), wherein each subset is

associated with a transaction initiated by the first database server (prior to update space

check there is a log in service associated with the application server, so that is the

indication that the space check in the database should be performed) that is performed

on the database.

As to claims 6 and 19, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of storing the first set of space usage data comprises: examining the database to generate the first set of space usage data (column 5, lines 13-16).

As to claims 7 and 20, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of retrieving the second set of space usage data comprises: determining that a configurable period of time has expired (Figure 23, step 502, wherein the space check occurs periodically, i.e. set time; paragraph 39, lines 53-56), wherein the configurable period of time indicates an amount of time to wait before retrieving second the second set of space usage data from one or more second clients.

As to claims 8 and 21, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the step of evaluating the usage of space in the database comprises: determining if a tablespace in the database has exceeded a configurable threshold (column 40, lines 25-31; wherein the amount if remaining storage space that is associated with low level of storage space is considered to be threshold).

As to claims 9 and 22, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, comprising: raising an alert that indicates that the usage of space in a

tablespace in the database has exceeded a configurable threshold (column 40, lines 11-16).

As to claims 10 and 23, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, comprising: in response to the step pf evaluating of the usage of space in the database, scheduling space reclamation for the database (Figure 23, step 510).

As to claims 11 and 24, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the database is in a distributed cluster if databases (as shown in figure 2A application servers and main database are all connected (cluster), since application servers have storage capability the can also be considered a database (server for storing data)).

As to claims 13 and 26, Chinta discloses the method and a computer- readable medium carrying one or more sequences for determining the usage of space in a database, wherein the steps of retrieving, updating, and evaluating may be repeated in sequence after a configurable amount of time lapses the step of evaluating was last performed (as shown in figure 23, if the system is not our of space (step 504) the flow chart loops so that the steps of checking and evaluating can be performed again).

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8.   <u>Claims 12 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable</u>

<u>over Chinta et al (US Patent 6879995) in the view of Levine et al (US Publication</u>

<u>20030177187).</u> Chinta teaches all the limitations disclosed in claims 1 and 14, except

for the database being in a grid of databases. Levine heals this deficiency by teaching

computing grid for massively multi-user immersive persistent-state and session based

applications (Figure 7). It would have been obvious to one of the ordinary skill in the art

during the time the invention was made to use a database in a grid of databases in the

Chinta's monitoring system because as taught by Levine computing grid speeds up the

access time and improves functionality of the network.

The Prior Art

9.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

     - US Publication 20040158573 discloses methods and apparatus for

management of data storage resources.

Inquiry

10.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela M. Lie whose telephone number is 571-272-8445. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on 571-272-1834. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Angela M Lie

WILSON LEE
PRIMARY EXAMINER